

Activity 5.2 – Two types of rocks comprise plates

What Will We Do?

We will investigate what happens at different plate boundaries and why.

Observations

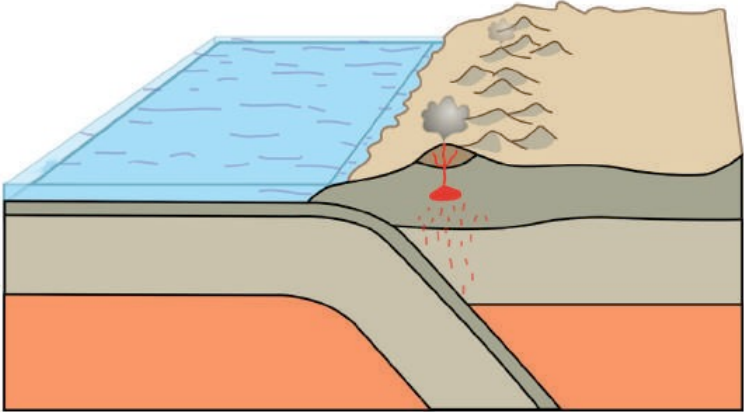
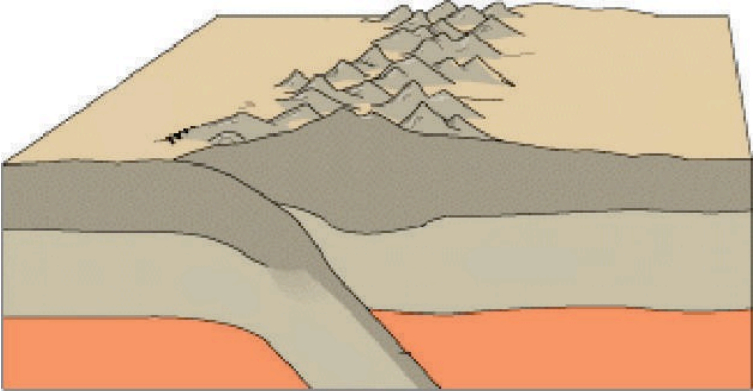
1. What did you observe when your teacher moved the towel plates toward each other? Sketch.
2. Compare this simulation to the formation of mountains.
3. When plates move toward each other, why do you think one plate sometimes slides underneath the other, while sometimes they do not move in this way? Refer to density in your explanation. In addition to a written explanation, sketch and label the whiteboard and towel.

Density Calculations

Measurement	Towel	White Board (or other item)
Mass (g)		
Volume (cm ³) find by l x w x h		
Density (g/cm ³) Mass/Volume		

Procedure

The following images are two cross sections showing what happens when two plates move toward each other. Depending on the type of plates (ocean floor rock or continental rock), different features are formed. Using the word bank column, label each diagram.

Cross Sections of Convergent Plate Boundaries	Word Bank
 <p>Plate Boundary: _____</p>	<p>ocean</p> <p>volcano</p> <p>ocean floor plate</p> <p>continental plate</p> <p>magma</p> <p>very hot rock</p> <p>dense rock</p> <p>less dense rock</p> <p>(draw arrows showing direction of movement)</p>
 <p>Plate Boundary: _____</p>	<p>continental collision</p> <p>continent</p> <p>mountain range</p> <p>crumpling</p> <p>very hot rock</p> <p>less dense rock</p> <p>(draw arrows showing direction of movement)</p>

Making Sense

1. Explain why ocean floor plates subduct beneath continental plates.

2. At this point, how would you answer the Driving Question: How Is the Earth Changing?